

## **Combinative Locker**

### **Field of Invention**

The present invention relates to a combinative locker.

### **Background of Invention**

Referring to Figures 7 and 8, a conventional combinative locker includes a periphery, a front panel or shutter 60 pivotally connected with the periphery and a back panel connected with the periphery. The periphery includes four peripheral panels 61 that are generally made of metal. The peripheral panels 61 are connected with one another so that the periphery can be collapsed during transportation and storage. In use, the periphery is held in shape by means of four L-shaped connectors 63 that are generally made of plastic. Each peripheral panel 61 includes a retroflexed edge 62 so as to define a tubular space. Each L-shaped connector 63 includes an end fit in the tubular space defined in one retroflexed edge 62 and another end fit in the tubular space defined in another retroflexed edge 62. This conventional combinative locker however entails some drawbacks. Firstly, the L-shaped connectors 63 provide poor rigidity to the periphery. Hence, the periphery collapses easily under a heavy load. Secondly, the retroflexed edges 62 can readily cut a user. Thirdly, one such conventional combinative locker cannot be put stably on another such conventional combinative locker because of their retroflexed edges.

The present invention is therefore intended to obviate or at least alleviate

1 the problems encountered in prior art.

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3 **Summary of Invention**

4 It is an objective of the present invention to provide a robust combinative  
5 locker.

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7 It is another objective of the present invention to provide a combinative  
8 locker that is safe to use.

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10 It is another objective of the present invention to provide a combinative  
11 locker that can be stably put on another combinative locker.

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13 According to the present invention, a combinative locker includes four  
14 peripheral panels, a rear panel and a front panel. The peripheral panels  
15 are connected with one another. Each of the peripheral panels includes  
16 an internal side, a rear edge, a front edge, a first reinforcement device  
17 formed on the internal side at the rear edge and a second reinforcement  
18 device formed on the internal side at the front edge. The rear panel  
19 includes a plurality of edges each connected with the rear edge of one of  
20 the peripheral panels. The front panel includes a plurality of edges one  
21 of which is pivotally connected with the front edge of one of the  
22 peripheral panels.

23

24 Other objects, advantages and novel features of the invention will become  
25 more apparent from the following detailed description in conjunction  
26 with the attached drawings.

1    **Brief Description of Drawings**

2    The present invention will be described via detailed illustration of the  
3    preferred embodiment referring to the drawings.

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5    Figure 1 is a perspective view of a combinative locker according to the  
6    present invention.

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8    Figure 2 is an exploded view of the combinative locker of Figure 1.

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10   Figure 3 is an enlarged partial view of a first reinforcement device for use  
11   in the combinative locker of Figure 1.

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13   Figure 4 is an enlarged partial view of a second reinforcement device for  
14   use in the combinative locker of Figure 1.

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16   Figure 5 is a cross-sectional partial view of the combinative locker of  
17   Figure 1.

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19   Figure 6 is a cutaway view of the combinative locker of Figure 1.

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21   Figure 7 is a perspective view of a conventional combinative locker.

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23   Figure 8 is a cross-sectional partial view of the conventional combinative  
24   locker of Figure 7.

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## **Detailed Description of Preferred Embodiment**

Referring to Figures 1 and 2, according to the preferred embodiment of the present invention, a combinative locker includes a rear panel 10, four peripheral panels 20 and a front panel or shutter 40. The peripheral panels 20 are connected with each other. The rear panel 10 is attached to the peripheral panels 20. The shutter 40 is pivotally attached to one of the peripheral panels 20.

The rear panel 10 includes four edges. A fin 11 extends from each edge of the rear panel 10 in perpendicular. Each fin 11 includes a corrugated edge that defines a groove 12.

Each peripheral panel 20 includes a rear edge, two lateral edges and a front edge. Referring to Figure 3, a reinforcement device 23 is formed at the rear edge of each peripheral panel 20. A plurality of tubes 22 is formed at each lateral edge of each peripheral panel 20. Referring to Figure 4, a reinforcement device 24 is formed at the front edge of each peripheral panel 20.

The reinforcement device 23 includes a strip 230 extending in parallel to each peripheral panel 20 and a fin 231 extending in perpendicular to the strip 230. The reinforcement device 23 is preferably a retroflexed edge of each peripheral panel 20.

The reinforcement device 24 includes a strip 240 extending in parallel to each peripheral panel 20 and a corrugated member 241 integrated with

1 the strip 240. Each peripheral panel 20 and its the corrugated member  
2 241 together define a channel 242. The reinforcement device 24 is  
3 preferably a retroflexed edge of each peripheral panel 20.

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5 Four L-shaped connectors 31 and four shafts 30 are used to connect the  
6 peripheral panels 20 with one another and keep them in position.

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8 Referring to Figure 5, each connector 31 includes an end fit in the  
9 channel 242 of one peripheral panel 20 and another end fit in the channel  
10 242 of another peripheral panel 20. Three peripheral panels 20 are  
11 connected with one another by means of two L-shaped connectors 31  
12 before the rear panel 10 is attached to them. Three grooves 12 receive  
13 the fins 231 of these peripheral panels 20, respectively. The last  
14 peripheral panel 20 is connected with two previous peripheral panels 20  
15 by means of two L-shaped connectors 31.

16

17 Each shaft 30 is inserted in the tubes 22 formed at one lateral edge of one  
18 peripheral panel 20 and the tubes 22 formed at one lateral edge of another  
19 peripheral panel 20.

20

21 The shutter 40 includes four edges. A fin 41 extends from each edge of  
22 the shutter 40 in perpendicular. A tube 42 is attached to a fin 41. Two  
23 opposite fins 41 both define an aperture 44. The tube 42 is aligned with  
24 the apertures 44. A knob 43 is attached to the shutter 40 for facilitating  
25 operation of the shutter 40.

26

1 Two shafts 32 are used to pivotally connect the shutter 40 with a  
2 peripheral panel 20. Each shaft 32 is inserted through a hole 243  
3 defined in the front edge of a peripheral panel 20 and an aperture 44, and  
4 fit in a tube 42.

5

6 The present invention has been described via detailed illustration of the  
7 preferred embodiment. Those skilled in the art can derive variations  
8 from the preferred embodiment without departing from the scope of the  
9 present invention. Therefore, the preferred embodiment shall not limit  
10 the scope of the present invention defined in the claims.

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